

REMARKS

Applicants and the undersigned thank Examiners Nguyen and Kelly for the courtesies they extended to Mr. Chang and the undersigned during the interview of January 21, 2003. The remarks below, in conjunction with the Interview Summary (Paper No. 14), reflect what was discussed at the interview.

As explained at the interview, applicants have amended the independent claims by incorporating the limitations of claims 23 and 45, which have been canceled, and clarifying that the atmosphere used to form the N-functional groups consists essentially of CO₂ and N₂ so as to distinguish the atmosphere used in the corona treatment of this invention from air or CO₂ alone, which do not, for the reasons explained by Mr. Chang in his first declaration in this application, suffice to produce the claimed levels of N-functional groups when used as corona treatment atmospheres.

Applicants have also amended the claims to state that the polymer layers of the film are “substantially free from slip additives.” This amendment is supported by Examples 1 and 2 in the specification, both of which show laminated films that do not include slip additives. Entry of these amendments is respectfully requested since they would at least put this application in better condition for appeal and indeed put the claims in condition for allowance.

With the entry of these amendments, claims 1-20, 24-44 and 46 will be pending in this application.

In the pending Action, the Examiner objected to the specification on the ground that “[t]he amendment of the specification wherein the phrase ‘air, CO₂’ was deleted from pages 3, 5 and 7 since Applicants had originally included air and CO₂ as gases in which the discharge treatment of the polyolefin resin layer was preferably conducted in.” This objection is respectfully traversed.

As explained at the interview, applicants respectfully submit that the Examiner has misread the disclosure. Pages 3, 5 and 7 of the specification expressly state that an atmosphere of CO₂ and N₂ is *more* preferred, and that air and CO₂ are merely “preferred.” Applicants can

limit their disclosure to their most preferred embodiment without *adding* new matter. At the interview, applicants referred the Examiner to MPEP 1302.01, which explains, “Frequently, the invention as originally described and claimed was of much greater scope than that defined in the claims as allowed. Some or much of the subject matter disclosed may be entirely outside the bounds of the claims accepted by the applicant.” Applicants also respectfully refer the Examiner to MPEP 2163.02, which characterizes the inquiry as determining whether the disclosure shows that the applicant had possession of the invention when the application was filed. Since the Examiner did not reject the claims for lack of enablement or lack of a written description, it is apparent from the Action that even the specification as amended supports the claims in this application prior to the amendments above. At the interview the Examiners kindly agreed to withdraw this objection.

Claims 1-8, 10-16 and 23 stand rejected under 35 USC 103(a) on Tsuchiya alone. Claims 9, 17, 18, 33, 41 and 42 stand rejected under 35 USC 103(a) on Tsuchiya in view of Kurokawa. Claims 19, 20, 43 and 44 stand rejected under 35 USC 103(a) on Tsuchiya in view of Tanizaki. Claims 24 and 46 stand rejected under 35 USC 103(a) on Tsuchiya in view of Yokoyama and Akao. Claims 25-32, 34-40 and 45 stand rejected under 35 USC 103(a) on Tsuchiya in view of Yokoyama. These rejections are respectfully traversed.

First, none of these references discloses or suggests the claimed corona treatment of the surface of the laminate film or the claimed nitrogen functional group content. The corona treatment limitations are not mere process limitations in product claims, since they serve to define a product which is not only different from prior art products but also would not be made by prior art processes. The claims do not embrace corona treatment in air or CO₂ alone and require, as explained earlier, nitrogen functional group contents in the film that Mr. Chang’s prior and supplemental declarations show Tsuchiya does not achieve. Applicants respectfully refer the Examiner to their previous arguments, which answer each of the points raised on pages 3-6 of the Action.

Second, in order to demonstrate further the patentability of the invention over the prior art of record, applicants submit herewith a declaration from Mr. Ken Kurokawa, one of the inventors of the cited Kurokawa reference, and a supplemental declaration from Mr. Chang, based in part on the information provided by Mr. Kurokawa. The documents attached to Mr. Kurokawa's declaration are the documents regarding commercial products made in accordance with Tsuchiya's disclosure that were shown to Examiners Nguyen and Kelly at the interview. Mr. Kurokawa's declaration is submitted to demonstrate the origin and admissibility as evidence of the documents attached thereto, and Mr. Chang's supplemental declaration explains what Mr. Kurokawa's documents show. These declarations, taken in conjunction with Mr. Chang's first declaration and the arguments previously presented, show that the subject matter of the claims is patentable over Tsuchiya and the other cited prior art.

Persons of ordinary skill in the art would not have been motivated by what is disclosed in Tsuchiya alone to modify what Tsuchiya discloses so as to arrive at the invention of claims 1-8, 10-16 and 23. The remaining secondary references cited by the Examiner are not cited to overcome, and do not respond to, these deficiencies of Tsuchiya and thus do not complete any case of obviousness as to the claims against they were cited. None of the prior art, individually or in combination, would have motivated persons of ordinary skill in the art to arrive at the claimed invention in all of its aspects.

Since the pending Action was mailed, applicants have uncovered additional documents that may be material to this application and are submitting an Information Disclosure Statement concurrently herewith to bring these documents to the attention of the Examiner. Paragraphs 8-13 of Mr. Chang's supplemental declaration provide an explanation of these references.

In light of the above, early allowance of claims 1-20, 24-44 and 46 is solicited.

Attached hereto is a marked-up version of the changes made to the claims by this amendment, captioned "Version with markings to show changes made."

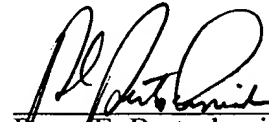
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for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 361752000500.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

1. (Amended) A laminate film comprising:

a polyolefin resin layer substantially free from slip additives and having a discharge-treated surface on one side of said polyolefin resin layer comprising at least 0.3% nitrogen functional groups on said discharge-treated surface; and

a metal layer having an optical density of at least about 2.6 deposited on said discharge-treated surface of said polyolefin resin layer,

wherein said discharge-treated surface is formed in an atmosphere consisting essentially of CO₂ and N₂ to form said nitrogen functional groups and wherein the laminate film has a barrier durability under 9% elongation of 46.5 cc/m²/day or less oxygen transmission rate through the laminate film.

3. (Amended) A laminate film comprising:

a first polyolefin resin layer substantially free from slip additives and having a first surface and a second surface;

a second polyolefin resin layer substantially free from slip additives that is disposed on the first surface of said first polyolefin resin layer having a discharge-treated surface on said second polyolefin resin layer disposed on the side opposite that of the first polyolefin layer comprising at least about 0.3% nitrogen functional groups on said discharge-treated surface;

a metal layer having an optical density of at least about 2.6 deposited on said second polyolefin resin layer; and

a heat sealable layer or a winding layer disposed on the second surface of said first polyolefin resin layer,

wherein said discharge-treated surface is formed in an atmosphere consisting essentially of CO₂ and N₂ to form said nitrogen functional groups and wherein the laminate film

has a barrier durability under 9% elongation of 46.5 cc/m²/day or less oxygen transmission rate through the laminate film.

25. (Amended) A laminate film comprising:

a polyolefin resin layer substantially free from slip additives and having a discharge-treated surface; and

a metal layer having an optical density of at least about 2.6 deposited on said discharge-treated surface;

wherein said discharge-treated surface is formed in an atmosphere consisting essentially of CO₂ and N₂ to form said nitrogen functional groups and wherein the laminate film has a barrier durability under 9% elongation of 46.5 cc/m²/day or less oxygen transmission rate through the laminate film.

27. (Amended) A laminate film comprising:

a first polyolefin resin layer substantially free from slip additives and having a first surface and a second surface;

a second polyolefin resin layer substantially free from slip additives that is disposed on the first surface of said first polyolefin resin layer;

a metal layer having an optical density of at least about 2.6 deposited on said second polyolefin resin layer; and

a heat sealable layer or a winding layer disposed on the second surface of said first polyolefin resin layer,

wherein said discharge-treated surface is formed in an atmosphere consisting essentially of CO₂ and N₂ to form said nitrogen functional groups and wherein the laminate film has a barrier durability under 9% elongation of 46.5 cc/m²/day or less oxygen transmission rate through the laminate film.